



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
Washington, D.C. 20231  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/944,866	08/31/2001	Michinobu Mizumura	16869P-031900US	2789

20350 7590 04/09/2003

TOWNSEND AND TOWNSEND AND CREW, LLP  
TWO EMBARCADERO CENTER  
EIGHTH FLOOR  
SAN FRANCISCO, CA 94111-3834

EXAMINER

NGUYEN, HOAN C

ART UNIT	PAPER NUMBER
----------	--------------

2871

DATE MAILED: 04/09/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/944,866

Applicant(s)

MIZUMURA ET AL.

Examiner

HOAN C. NGUYEN

Art Unit

2871

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-7 and 11-15 is/are pending in the application.
- 4a) Of the above claim(s) 8-10 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

## **DETAILED ACTION**

### ***Election/Restrictions***

Applicant's election of the first embodiment (Figs. 1 and 2, claims 1-7, 11, 12 and 13-15) in Paper No. 8 is acknowledged. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)).

### ***Drawings***

The drawings are objected to under 37 CFR 1.83(a). The drawings must show every feature of the invention specified in the claims. Therefore, the features of "scan lines", "signal lines" and "interlayer insulation film" must be shown in Figs. 1-2 (selected species) or the feature(s) canceled from the claim(s). No new matter should be entered.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claims 1-2 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by Salisbury (US5303074A).

Salisbury teaches (Fig. 2B, abstract and col. 42 to col. 8 line 3) a method for repairing line pattern defects comprising steps for

- detecting a shorting defect between a scan line and signal line and
- identifying the location of the defect in a flat panel display unit wherein the scan lines or signal lines or both scan lines and signal lines branch in two parts at an intersection between scan lines and signal lines,
- disposed with an interlayer insulation film therebetween;
- cutting the portion containing the intersection between the scan line and signal line where the shorting defect is located with a laser beam;
- forming an insulation film locally at the cut to repair the shorting defect (col. 7 line 65 to col. 8 line 3).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 3 is rejected under 35 U.S.C. 103(a) as being unpatentable over Salisbury (US5303074A) as claim 1 above.

It is conventional that heat cures the locally supplied insulation film material for melting insulation film material into cutting regions.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a method for repairing line defects with heat cures the locally supplied insulation film material for melting insulation film material into cutting regions.

3. Claims 4-7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Salisbury (US5303074A) as claim 1 above and in view of Takagi et al. (US5801965A).

Takagi et al. teach a method for repairing line defects comprising further steps for detecting a shorting defect between a scan line and signal line in a flat panel display unit wherein scan lines and signal lines are formed with an interlayer insulation film there-between and storing the position of the detected shorting defect for carrying out the method, an inspection method, and an inspection system for carrying out the inspection method.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to further modify a method for repairing line defects with further steps of detecting a shorting defect between a scan line and signal line in a flat panel display unit wherein scan lines and signal lines are formed with an interlayer insulation film there-between and storing the position of the detected shorting defect for carrying out the method, an inspection method, and an inspection system for carrying out the inspection method.

**Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure:

Choi (20010035920) discloses repair structure for liquid crystal display with a defect due to a short circuit between the scan line and the data line.

Irie et al. (US5734450A) disclose a defect correcting method of an active-matrix substrate.

Kim et al. (US5696566A) disclose a method for manufacturing thereof capable of reducing the occurrence of such defects as short circuits between a gate line and data line and fractures of the gate line.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to HOAN C. NGUYEN whose telephone number is (703) 306-0472. The examiner can normally be reached on MONDAY-THURSDAY:8:00AM-4:30PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0530.

HOAN C. NGUYEN  
Examiner  
Art Unit 2871

chn  
March 27, 2003

TOANTON  
PRIMARY EXAMINER